

1 WHAT IS CLAIMED IS:

2 1. A device for anchoring a tissue to a bone, said device
3 comprising:

4 an implant made of a flexible wall and provided with a holding
5 portion and an injection port in communication with said holding portion,
6 with said holding portion being enclosed by said flexible wall which is
7 provided with a plurality of pores, each having a diameter smaller than 0.1
8 mm whereby said implant is contractile and is contracted prior to being
9 inserted into the bone;

10 one or more sutures fastened with said implant; and
11 a pasty medicine capable of solidification injected into said
12 holding portion via said injection port of said implant in the wake of
13 insertion of said implant into the bone, thereby resulting in expansion of
14 said implant so as to enable said implant to be securely lodged in the
15 bone upon completion of the solidification of said pasty medicine.

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17 2. The device as defined in claim 1, wherein said flexible wall of
18 said implant is of a one-layered construction.

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20 3. The device as defined in claim 1, wherein said flexible wall of
21 said implant is of a laminated multi-layered construction.

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23 4. The device as defined in claim 1, wherein said sutures are
24 fastened at one end with said implant.

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1 5. The device as defined in claim 1, wherein said injection port of
2 said implant is provided with a suture hole for holding said sutures.

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4 6. The device as defined in claim 1, wherein said implant is
5 integrally made of said flexible wall such that said implant takes the form
6 of sac, bag, or ball.

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8 7. The device as defined in claim 1, wherein said pasty medicine
9 is a mixture of a liquid and a bone cement.

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11 8. The device as defined in claim 7, wherein said bone cement is
12 selected from the group consisting of gypsum, calcium sulfate, calcium
13 phosphate, poly(methylmethacrylate) and hydroxy apatite.

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15 9. The device as defined in claim 1, wherein said implant is
16 provided with an imaging body of a metal conductor or graphite.

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18 10. The device as defined in claim 1 further comprising an
19 injection tool fastened detachably with said filling member, so that said
20 pasty medicine is injected into said holding portion via said injection tool.

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22 11. The device as defined in claim 10, wherein said injection tool
23 comprises a connection tube and a syringe formed of a barrel and a
24 plunger, said connection tube being fastened detachably at one end with
25 said injection port of said filling member, said connection tube further
26 being fastened at other end with said barrel of said syringe; wherein said

1 pasty medicine is injected into said holding portion of said filling member
2 from said barrel by said plunger via said connection tube.

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4 12. The device as defined in claim 11 further comprising a sleeve
5 receiving said connection tube and said implant prior to insertion of said
6 implant into the bone, wherein said sutures protrude from said sleeve.

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8 13. The device as defined in claim 17, wherein said sleeve is
9 made of a material having an elasticity and has a longitudinal slit, so that
10 said sleeve can be removed from said connection tube by expanding said
11 longitudinal slit.

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